



Student name: _____ Class/Hour: _____

***SySTEM Alert!* Quiz (Volume 6, Number 4)**

1. What is the maximum wind speed in the Aerodyn wind tunnel?
 - A. 80 miles per hour
 - B. 110 miles per hour
 - C. 130 miles per hour
 - D. 170 miles per hour

2. Which is not a recognized type of pollution?
 - A. air pollution
 - B. sound pollution
 - C. light pollution
 - D. food pollution

3. DC motors convert _____ into _____.
 - A. direct current, mechanical energy
 - B. direct current, potential energy
 - C. alternating current, mechanical energy
 - D. alternating current, potential energy

4. What word or phrase best describes torque?
 - A. chemical energy
 - B. rotational force
 - C. horsepower
 - D. potential energy

5. Friction between the surface of a car and the air is called what?
 - A. drag
 - B. torque
 - C. pitch
 - D. alternating current

6. How can downforce help a race car?
 - A. It keeps the car from flying away.
 - B. It helps fuel efficiency.
 - C. It improves the grip of the tires.
 - D. It doesn't. Downforce is always a disadvantage for a race car.

7. Match the inventor to the electrical current he promoted.
 - A. Michael Faraday, electromagnetic current; Steve Jobs, design current
 - B. Steve Jobs, design current; Michael Faraday, direct current
 - C. Thomas Edison, direct current; Nikola Tesla, alternating current
 - D. Nikola Tesla, torque current; Thomas Edison, alternating current

8. What is the advantage of testing cars in a wind tunnel over testing cars on a track?
 - A. Air speeds are greater in a wind tunnel.
 - B. Wind tunnels help narrow a test to look at specific variables.
 - C. It is harder to schedule time at a track.
 - D. No equipment has been invented to test cars on a track.

9. Excessive light can disrupt the production of which chemical in the body?
 - A. melatonin
 - B. cortisol
 - C. insulin
 - D. lactic acid

10. What is the most common application for DC motors?
 - A. fans
 - B. cell phones
 - C. fidget spinners
 - D. battery-operated devices

Bonus:

Artificial lighting has advantages. But it also has disadvantages. The excess light in urban areas creates unnatural conditions that can confuse nearby wildlife and disrupt biological cycles in humans. Do you think it is worth the effort and cost to redesign the technology we use for artificial lighting? Why or why not?